
Section 7

TESTING LABORATORY AND TEST REPORTING REQUIREMENTS

7.1 DESCRIPTION

This section provides minimum Department testing laboratory and test reporting requirements for the certification/authorization of traffic control products listed on the APL (Certified Process) and APL (Developmental Process) when first- or third-party testing laboratory data are required. Third-party testing is typically required for official traffic control signals and devices. First-party testing is allowed for ancillary devices. The TERL maintains a list of acceptable independent testing laboratories for use by applicants. Although not endorsed by the TERL, laboratories in this list have submitted test reports that have been accepted in the past as meeting all applicable requirements listed in this section. While the list is provided for the benefit of applicants, a laboratory not included in the list may be selected. Applicants/suppliers remain responsible for ensuring that the independent testing laboratory and associated test report meet all requirements in applicable product specifications and this document.

A list of independent testing laboratories is available at:

<https://www.fdot.gov/traffic/traf-sys/traf-sys.shtm>

(click on the blue button titled "Independent Test Lab List")

7.2 LABORATORY AND REPORTING REQUIREMENTS

- (1) All test equipment used, as required by the manufacturer of the test equipment, shall be calibrated. The equipment calibration range shall include test measurements recorded in the laboratory report.
- (2) The independent (third-party) testing laboratory and its personnel shall not in any way be associated with the manufacturer, or any parent or subsidiary of same.
- (3) The laboratory report shall be less than 5 years old, unless detailed schematics and parts lists show no changes were made to the product.
- (4) The report shall be organized based on each sub-section of the testing standard and be text searchable.
- (5) The report shall contain the following, at a minimum:
 - (a) A cover page including:

- Laboratory name, address, phone number and web site address
 - Names and titles of staff performing the test, and approving test results
 - Report date
 - Vendor name
 - Description, part/model number, serial number, and date of manufacture of product tested
 - Product specification (e.g., NEMA TS2, FCC Part 15) used for testing
- (b) An executive summary of test results indicating whether the product passed or failed. If the product was repaired following a test failure, a summary of the repair (information provided by the vendor to the laboratory, as applicable).
- (c) A description of the test procedure and date of testing.
- (d) A description of the test equipment used and current calibration dates at the time of testing.
- (e) The test conditions.
- (f) The test results including a pass/fail status relative to each test performed and supporting test data (graphs, measured data, etc.).
- (g) A top assembly drawing. If the product was repaired, an updated drawing.
- (h) Before, during and after-test photographs of the product being tested.
- (i) Photographs of the test set-up and location of gauges (if used).
- (j) A description of the location and type of failure, and photographs of each failure, as applicable. If the product was repaired, a detailed description of the repair (information provided by the vendor to the laboratory, as applicable).
- (6) If a NEMA TS2 test (sections 2.2.7, 2.2.8 and 2.2.9) is performed, the laboratory shall subject to the test, all equipment components necessary to operate the product (e.g., power supply). Note that battery components do not have to be subjected to the test.

7.3 DOCUMENT HISTORY

Rev	Description	Authored and Checked	Reviewed	Approved	Approval Date
1.0	New Product Certification Handbook section created from transferring specification sections A601-3 and A601-4 from the MSTCSD due to the MSTSCD/SSRBC merger. No content change other than 'Description' section.	A. Burleson	D. Vollmer R. Meyer J. Morgan T. Tillander	M. Wilson	06/12/2012
2.0	Revisions of section/sub-section numbers and removal of unnecessary hyperlinks.	A. Burleson	J. Morgan	M. Wilson	06/13/2012
3.0	Included language concerning list of independent test labs, allowing first-party testing for ancillary devices, and requiring third-party testing for official traffic control devices.	A. Burleson	J. Morgan	M. Wilson	08/07/2012
4.0	Comments from FDOT Legal Office addressed.	A. Burleson J. Morgan	J. Morgan	M. Wilson	08/05/2013

5.0	Added the latest revised URL	A. Burleson	J. Morgan	M. Wilson	08/06/2013
6.0	Added “typically” to requirement of third-party testing for official traffic control signals and devices.	A. Burleson	J. Morgan	M. Wilson	01/23/2014
7.0	Updated to reflect receiving electronic submittals instead of paper applications.	K. Moser	J. Morgan	M. Wilson	06/23/2014
8.0	Revised URL for list of independent test labs.	A. Burleson	J. Morgan	M. Wilson	08/19/2014
9.0	Updated position title for Mark Wilson in document control panel. Removed section 7.3 for pull-boxes (section will be moved to compliance matrix for pull-boxes).	A. Burleson	J. Morgan	M. Wilson	01/07/2015
10.0	Updated URL for the independent testing laboratories.	J. Morgan	E. Birriel	M. Wilson	10/21/2016
11.0	Updated URL for list of independent test labs. Added requirements for test reports: less than 5 years old, serial number, description of repair and updated drawings for failed devices, top assembly drawing, and specific information on cover page. Added guidance for NEMA TS2 test.	A. Burleson A. Blank	D. Vollmer M. DeWitt W. Geitz	T. Tillander	05/27/2022
12.0	Removed reference to IPL and requirement for calibration of test equipment to be independent.	A. Burleson	D. Vollmer M. DeWitt W. Geitz	R. Powell	05/09/2024